

## Study and Use of Petroleum Products

917

the method were used, which include (Variant I) treatment with sulfuric acid and rinsing with water and (Variant II) titration with a 0.1 n solution of KOH. The accuracy of this method was determined with synthetic mixtures of alkanes and cyclanes(naphthenes) of gasoline B-70 and 2,2,4 - trimethyl pentane.(iso-octane). Variant I, with a degree of error of plus or minus .5 percent, is recommended, whereas Variant II had a degree of error of plus or minus .8 percent. There are 7 tables and 1 Soviet reference.

Tilicheyev, M.D. Basing the Boiling Point of Petroleum Products  
on Atmospheric Pressure 156

Boiling points are "brought to normal" according to the pressure of saturated vapors of individual hydrocarbons, on the basis of n-alkanes. The author states that this method and others lead to serious errors, and gives methods for

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computing these boiling points when transferring from one pressure to another by using the coefficients of Antoine's equation ( $t_p = \frac{B}{A - \lg P} - C$ ) and a graphic method based on the molecular weights of the compounds. There are 3 figures, 4 tables and 11 references, of which 6 are Soviet and 5 English.

Ptashinskiy, I.A. and Guseva, R.I. Electrometric Method of Evaluating the Corrosive Aggressiveness of Lubricating Oils 174

This article gives a resume of research on the electrochemical nature of the corruptions of metals in different solutions. The electrochemical nature of the corrosion process was proven for solutions of acids and for oil SU, and a satisfactory method for measuring the electric potential of a metallic electrode in lubricating oil was worked out. There are 3 tables and 7 Soviet references.

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Ptashinskiy, I.A. and Frolova, M.K. Polarographic Method of  
Determining Tetraethyl Lead in Gasolines 181

The authors offer a simpler and more reliable method of determining the concentration of tetraethyl lead in aviation and automobile gasolines. The quantity is computed according to the formula  $TL (Pb(C_2H_5)_4) = \frac{323.22}{10e} C \cdot 75$ , where TL is the

quantity of tetraethyl lead per g/kg. of gasoline; C the concentration of lead chloride, determined according to a calibrated graph based on the polarographing of the tested solution; and the density of gasoline at 20° C. The quantity of ethyl liquid product P-9 per ml. in 1 kg. of gasoline is:  $X = 1.213 TL$ . It is stated that this method requires 1/3 to 1/4th as much time as standard methods. There is 1 figure, 1 table and 3 references, of which 2 are Soviet.

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Osher, R.N.; Zaytseva, L.D. Determination of the Saponification Number of Petroleum Products and the Content of Free Fats in Consistent Lubricants

185

This article first reviews in detail various methods for making the determination mentioned in the title. However, a unified method based on ordinary titration procedures is offered as being quicker and more accurate and has been accepted as standard method GOST 6764-53. There are 3 tables.

Bagryantseva, P.P.; Badayeva, M.K.; and Kaygorodtseva, R.A. The Protection of Hydraulic Gas Containers from Corrosion 189

A review is given of efforts that have been made to produce a suitable liquid to inhibit the corrosion of hydraulic valves of gas containers. Investigation showed that carbon black increased the viscosity of the oil base, while sudan apparently had no influence. Synthetic rubbers and polyisobutylenes were used successfully as components of the protective liquid. The simultaneous introduction of a passivator and a protective liquid into the water which

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flows through the shutoff valve of the gas container increases the effectiveness of corrosion protection. The acidity of this liquid does not have a negative effect on its protective properties. There are 7 tables and 1 figure.

Kaulina, M.M. and Luneva, V.C. Evaluation of the Viscosity Properties of Consistent Lubricants at Low Temperatures by Using Rotary and Capillary Viscometers

199

The above-mentioned methods are described in detail. 1) The rotary viscometer [Ref. 2] is based on measuring the resistance of lubricants on a revolving roller. 2) The capillary viscometer [Ref. 1, 4, 7] is based on measuring the resistance of oils passing through a capillary tube. The rotary viscometer has no temperature limitations, it is stated, and the viscosity of lubricant greases can be determined at -30° C. The rotary method was worked out by

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V.P. Pavlov and the capillary method by the Institut nefti AN SSR (Petroleum Institute, Academy of Sciences, USSR). There are 2 tables, 2 figures and 7 Soviet references.

Bagryantseva, P.P. and Badayeva, M.K. The Influence of the Volatility and Viscosity of Mineral Oils on the Operational Properties of Cold-resistant Consistent Lubricants 206

Commercial lubricants were investigated to compare their physicochemical and volume properties, and to test their work capacity in roller bearings on stands and under operational conditions as well. It was concluded that viscosity properties and work capacity of lubricants are dependent upon the hydrocarbon content and upon the volatility and viscosity, respectively, of their component mineral oils. Also, volatility showed great influence on viscosity properties, which were dependent in a linear relationship. Experiments were carried out at an experimental station of the ENII PP. There are 9 figures and 4 tables.

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Study and Use of Petroleum Products 917

Luneva, V.S., and Kovalev, V.A. Quick Method for Determining  
the Protective Capacity of Concistent Lubricants 219

This article outlines methods for and gives results of evaluating the protective effectiveness of lubricants against corrosion in both liquid and gaseous media. Petrolatum, gun lubricant and commercial vaseline were the more resistant to gaseous corrosion, while corrosion was best controlled in liquid media according to GOST 5757-51, which is based on measuring the width of the protective coating of oil deposited on metal surfaces at various temperatures, and several other factors. There are 4 figures, 7 tables and 14 Soviet references.

AVAILABLE: Library of Congress

TM/ksv  
1-23-59

Card 17/17

AUTHORS: Fuchkov, N. G; Borovaya, M. S. and Zelenskaya, R. G. SOV/65-58-8-1/14

TITLE: Useful Properties of Lubricating Oils for Cars from Eastern Sulphur Petroleum (Ekspluatatsionnye svoystva avtolov iz vostochnykh sernistykh neftey).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.8. pp. 1 - 9. (USSR).

ABSTRACT: During tests by the Novokuybyshevsk Petroleum Refinery (Novokuybyshevskiy neftepererabatyvayushchiy zavod) carried out by TSIATIM, VNIITneft, NAMI and VNII NP it was found that the properties of oils prepared according to Standard GOST 8581-57 are unsatisfactory. Detailed investigations were, therefore, carried out on the chemical composition and physico-chemical properties of these oils. From characteristics of these samples (Table 1), it can be seen that oils from sulphur petroleum differ from Bakü petroleums by their low magnitudes of density and low refraction coefficients, but they have better viscosity-temperature properties, show low corrosion and a high tendency to lacquer formation. Data on the effect of the addition of various additives on the properties of lubricating oils NK NPZ was evaluated by laboratory methods (Table 2) in a Pinkevich apparatus. The smallest

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Useful Properties of Lubricating Oils for Cars from Eastern Sulphur  
Petroleums.

anti-corrosive action was shown by the additive Paranoks and Tsiatim-339. The additive AzNII-4 and Santolube proved unsatisfactory. The additive DF-1 Paranoks and Santolube was most effective in reducing lacquer formation. Analogous data were obtained when determining the detergative properties according to PZV (GOST 5726-53). The oil NK-NPZ could not be tested on the engine GAZ-51 because of insufficient purification. Table 3: results of tests of oils on the engine GAZ-51 (time of test = 100 hours). As these laboratory analyses proved to be insufficient, pure and used oils were divided into hydrocarbon fractions (Tables 4, 5 and 6) and tested (Refs.3, 4 and 5). A comparative evaluation of the chemical composition of these oils showed that after 150 hours of work the chemical group composition of the oils changed only to a slight extent. However, the viscosity of the aromatic fractions of the oils from Baku petroleum altered considerably. Some additional characteristics of the changes of the oils after 100 hours of work were obtained during the analysis of tars (Table 7) and during analysis of deposits on filters (Table 8). The lower degree of carbonisation

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## Useful Properties of Lubricating Oils for Cars from Eastern Sulphur Petroleums.

of oxidation products was less dependent on the chemical composition of the oils than on the presence of sulphur in the oil NK-NPZ. Further tests were carried out on the oxidation of five samples of oils under laboratory conditions (in the apparatus DK-2 NAMI) at 180°, 200° and 220°C during fifty hours. The viscosity at 50°C was determined every ten hours, as well as the quantity of insoluble deposits, tar and the amount of formed asphaltenes and hydroxy acids (Figs. 1 - 4). Table 9: data on the content of sulphur in the oils. At high temperatures (220°C and higher) the stability of Baku and Eastern oils equalises. Oxidation products of Eastern oils are less pure and contain a larger amount of tars, asphaltenes, hydroxy acids, but no carbene s or carboids. There are 9 Tables, 4 Figures and 5 References: 4 Soviet and 1 English.

1. Lubricating oils--Test results  
    ness    3. Sulfur--Chemical effects    2. Lubricant additives--Effectiveness

Card 3/3

*F-1000 27 A/6*  
AUTHORS: Pushkov, N. G., and Borovaya, M. S. 65-58-4-2/12

TITLE: The Reliability of Some Laboratory Methods of Evaluating the Operational Properties of Motor and Tractor Oils (O dosto-vernosti nekotorykh laboratornykh metodov otbor i issledovaniya ekspluatatsionnykh svoystv avtotraktornykh masel)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1953, Nr 4,  
pp 10 - 17 (USSR)

ABSTRACT: Some comparatively new laboratory methods of evaluating the properties of tractor oils (e.g. the corrosive properties, thermal stability, tendency to form scale - and other deposits) are reviewed. The following factors have to be taken into account when evaluating the operational properties of motor oils:- (a) the wear of the engine, (b) the scale formation, (c) corrosion of the engine parts, and (d) the starting of the engine. The anti-wear properties of a motor oil do not depend on its initial anti-wear properties, but on the depths of oxidation and thermal decomposition of the oil which leads to the formation of insoluble deposits of tars, acids and asphaltenes. These conditions cannot be reproduced in a friction engine, and therefore, the evaluation of anti-wear properties of motor oils are carried out on one-cylinder test machines (OUV, MT9-2, MT9-3),

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The Reliability of Some Laboratory Methods of Evaluating the Operational Properties of Motor and Tractor Oils

and on actual engines for long and short periods. The methods of Yu. A. Pinkevich and K. S. Ramayya were used for evaluating the corrosive properties of motor oils. The method was developed when lead-copper, cadmium-silver, cadmium-nickel, and other alloys were first put into wide use. This method was evaluated according to the method of Pinkevich on the bearings of the engine ЯАЗ-204. A practically linear dependence of the wear of the bearings on the corrosivity of the oils was found (Fig.1). The method developed by K. K. Papok et al (Refs. 2, 8 and 9) for determining the properties preventing scale formation were verified (Fig.2), and a modified method for determining the coefficient of lacquer formation is discussed, as well as results obtained by the method ПЗВ for differentiating oils containing additives, and the method of laboratory evaluation of lacquer formation of oils (Figs. 3, 4 and 5 and Table 2). These tests were carried out on a tractor engine Д-35. Laboratory methods of oxidizing motor oils were also verified according to VNIIITneft' and NAIJ (K. S. Ramayya).

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The Reliability of Some Laboratory Methods of Evaluating the Operational Properties of Motor and Tractor Oils

Table 4: a comparison of diesel oils after their oxidation according to the method NAMI and tests in the engine Д-35. Table 6: results of tests on diesel oils. There are 6 Tables, 6 Figures and 12 References - 3 English and 9 Russian.

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ASSOCIATION: VNII NP.

1. Lubricating oils-Test results
2. Lubricating oils-Corrosive effects
3. Lubricating oils-Test methods

PUCHKOV, V. G., PAPOK, K. K., KREIN, S. P., SUF'YANO, E. G., PANOV, V. V.

"Investigation of Motor Oil Stability and Methods of Its Evaluation."

Report submitted at the Fifth World Petroleum Congress, 30 May -  
5 June 1959. New York.

*(Technical, etc.)*

KREYN, S.E.; MITROFANOV, M.G.; PUCHKOV, N.G.

Choosing oils with the best chemical composition and methods of  
producing such oils. Khim. i tekh. topl. i masel no.12:13-22  
D '57. (MIRA 11:1)  
(Lubrication and lubricants)

11(4) PHASE I BOOK EXPLOITATION 807/375

Academy наук ССРН, Москва 117019  
 Наука серия научн.-техн. симпозиумы, подготвленные Ученым советом по нефти и газу [Химия органических соединений, содержащих серу и азот в нефтяных и нефтепродуктах] (Химия нефти и нефтепродуктов) [Пapers of the Third Scientific Session on Organic Compounds Containing Sulfur and Nitrogen in Petroleum and Petroleum Products] Moscow, Izd-vo Akademiya Nauk SSSR, 1959. - 376 p.  
 8,000 copies printed. Errata sib? inserted.

Editorial Board: N.D. Obolezhev (Chairp., Dr.), Doctor of Technical Sciences; Ya. I. Chertkov, Doctor of Technical Sciences; V.V. Panov, Candidate of Technical Sciences; and V.P. Pardasenskiy, Candidate of Chemical Sciences; Ed. of Publishing House: I.I. Brusavi Tech. Ed.: T.P. Polosova.

PURPOSE. This book is intended for chemists, chemical engineers, and technicians specializing in the chemistry of petroleum.

CONTENTS. The book is a collection of papers presented at the Third Scientific Session on the Chemistry of Organic Sulfur- and Nitrogen Compounds Contained in Petroleum and Petroleum Products. The scientific session was held in USSR, June 3-8, 1957. The book contains six sections: 1) Synthesis; 2) Separation and fractionation, and analysis of organic sulfur compounds; 3) Separation and petroleum composition; 4) Transformation of organic sulfur compounds by thermal, catalytic, or microbial processes; 5) Corrosive properties of sulfur-containing petroleum and petroleum products; 6) Physiological properties of organic sulfur compounds. No personnel is mentioned. There are 315 references, of which 119 are Soviet, 110 English, 5 French, 12 German, and 1 Czech.

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Chemistry of Sulfur-Organic Compounds (Cont.)

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PART IV. CORROSION ACTIVITY AND TAR FORMATION OF SULFUR-COMPOUNDED PETROLEUM AND PETROLEUM PRODUCTS

Zaharchenko, L.D., S.M. Vol'son, Corrosive Properties of Sulfur-containing Petrolens	269
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Bogolyubov, Yu.G., F.M. Gerasimkin, Methods of Controlling the Wear of Sulfur Compounds due to Corrosion Caused by Use of Diesel Fuel with a High Sulfur Content	293

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L 20632-66 EWT(m)/T DJ

ACC NR: AP6011220

(A)

SOURCE CODE: UR/0413/66/000/006/0057/0057

INVENTOR: Blagovidov, I. F.; Druzhinina, A. V.; Monastyrskiy, V. N.; Puchkov, N. G.; Deryabin, A. A.; Borovaya, M. S.; Filippov, V. F.; Avaliani, T. K.; Zaslavskiy, Yu. S.; Tarmanyan, G. S.; Shor, G. I.; Dmitriyeva, N. A.; Belyanchikov, G. P.; Kuliyev, A. M.; Suleymanova, F. G.; Zaynalova, G. A.; Sadykhov, K. I.

ORG: none

TITLE: Preparative method for motor oils. Class 23, No. 179868

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 57

TOPIC TAGS: lubricating oil, lubricant additive

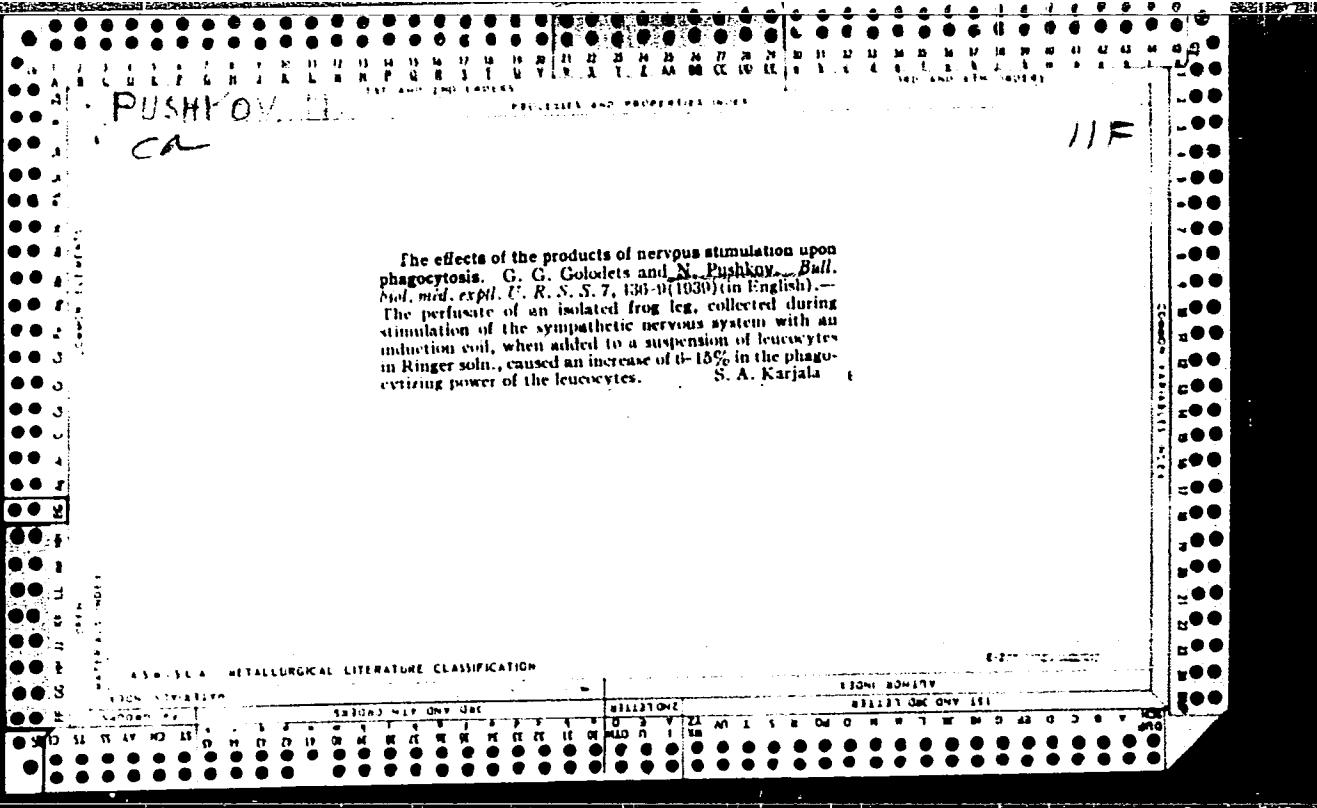
ABSTRACT: An Author Certificate has been issued for a preparative method for motor oils, involving the introduction of additives! To impart the required service properties, the additives used are an alkylphenol-formaldehyde condensation product (3—15%), a sulfonate additive (1—6%), an additive based on xanthates or dithiophosphates (0.5—1%), and an organosilicon additive (0.003—0.005%) [the additives are no further identified in the source].

[SM]

SUB CODE: 11/ SUBM DATE: 02Aug62/ ATD PRESS: 4225

Card 1/1

UDC: 665.521.5002.237



PUCHKOV, N. V.

USSR/Medicine - Leukocytes  
Medicine - Phagocytes and Phagocytosis

Jan/Feb 1948

"The Effects of Mediators on the Phagocytic Action of Leukocytes: II," G. G. Golodets,  
N. V. Puchkov, Chair of Animal Physiol, Moscow Inst of Fish Industries and Econ imeni  
A. I. Mikoyan, 8 pp

"Fiziol Zhur SSSR" Vol XXXIV, No 1.

Authors describe experiments they conducted to determine the effect of acetylcholine and adrenalin on the phagocytosis of substances isolated from the erratic nerv, and also to explain the effect on the phagocytosis of vegetable toxins introduced into the organs of a body which had not been excised. Submitted, 20 Mar 1946.

PA 41T56

Puchkov, N. V.

11-31/ADPO

USSR/Medicine - Nervous System Aug 48  
Medicine - Phagocytes and Phagocytosis

"Does the Mediator of Nerve Irritation Act  
Opsonically on Phagocytes?" N. V. Puchkov, 4 pp

"Dok Ak Nauk SSSR" Vol LXI, No 5

Concludes that the influence of the mediators on  
phagocytosis has nothing in common with the  
action of opsonins.

24/49T90

Puchkov, N. V.

## USSR/Medicine - Phagocytosis

Jul/Aug 52

"The Temperature Coefficient of Phagocytosis,"  
N.V. Puchkov and A.L. Fedorova, Chair of Animal  
Physiol., Moscow Tech Inst of Fish Ind 1m A. I.  
Mikoyan

Fiziol Zhur SSSR, No 4, Vol 38, pp 490-495

Human leucocytes as well as in those of cold-blooded animals show no phagocytosis at 0°C and below. Phagocytosis starts only at a temp slightly above zero. In human leucocytes and those of cold-blooded animals it increases with the increase of temp and reaches its highest point at 37°C in man and 30°C in frogs. In expts the const which

273T39

characterizes the change in reaction rate (Arrhenius constant) was found to be approx the same in man and frogs. The temp coef of phagocytosis  $Q_{10}$  for man equaled 2.6 between 20° and 30°C and 1.7 bet 30° and 37°C.  $Q_{10}$  reaches a max in cold-blooded animals at temps of 5-10°C, decreasing above this temp. The ability of human leucocytes to adhere to solid substances does not parallel the speed of phagocytosis. Received 6 Feb 49.

273T39

1. PUCHKOV, N. V.; TITOVA, S. M.
2. USSR 600
4. Phagocytosis
7. Modified method for the study of phagocytic activity of leucocytes, Fiziol. zhur., 38, No. 6, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

PUCHKOV, N.V., professor; KHLATINA, Ye.S., redaktor; DUBOVKINA, N.A.,  
tekhnicheskiy redaktor.

[Physiology of fish] Fiziologija ryb. Moskva, Pishchepromizdat,  
1954. 370 p. (MLRA 7:12)  
(Fishes--Physiology)

GOLODETS, G.G.; PUCHKOV, N.V., professor, redaktor; KHLATINA, Ye.S., redaktor;  
FROLOV, Yu.P., professor, retsenzent; VIKTOROV, K.P., professor, retsen-  
zent; MEDV рЕДЕВА, L.A., tekhnicheskiy redaktor

[Laboratory manual on the physiology of fish] Laboratornyi praktikum  
po fiziologii ryb. Moskva, Pishcheprom-izdat, 1955. 89 p.  
(Fishes--Laboratory manuals)

(MIRA 9:3)

PUCHKOV, N.V.; FIRSOVA, P.P.

Effect of parasympathicotropic substances on the phagocytic activity of leukocytes in patients with cancer; preliminary report. Biul. eksp. biol. i med. 55 no.3:85-86 Mr '63.

(MIRA 18:2)

1. Iz laboratorii patofiziologii (zav. - prof. N.V. Pichkov) Instituta pediatrii AMN SSSR i Instituta khirurgii imeni A.V. Vishnevskogo (direktor - deystvitel'nyy chlen AMN SSSR A.V. Vishnevskiy), Moskva. Submitted May 15, 1961.

BRYUKHONENKO, Sergey Sergeyevich (1890-1960); MESHALKIN, Ye.N.,  
doktor med. nauk, prof., otv. red.; LAPCHINSKIY, A.G.,  
st. nauchn. sotr., red.; PUCHKOV, N.V., prof., red.;  
PERESTORONIN, S.A., red.; YANKOVSKIY, V.D., doktor med.  
nauk, red.

[Artificial blood circulation; a collection of works  
problems of artificial blood circulation] Iskusstvennoe  
krovoobrashchenie; sbornik rabot po voprosam iskusstven-  
nogo krovoobrashcheniya. Moskva, Nauka, 1964. 282 p.  
(MIRA 17:9)

KAPLUN, N.A.; NEVSTRUYEVA, V.S.; MITROFANOV, V.S.; OBROSOV, A.N.; PUCHKOV, N.V.; CHERNUKH, A.M.

Experimental observations on new methods for the administration of antibiotics of the tetracycline group. Antibiotiki 5 no.6:36-41 N-D '60.  
(MIRA 14:3)

1. Otdel eksperimental'noy khimoterapii (zav. - prof. A.M.Chernukh) Instituta farmakologii i khimioterapii i otdel fizioterapii (zav. - prof. N.A.Vinogradov) Instituta kurgortologii i fizioterapii Ministerstva zdravookhraneniya SSSR.

(TETRACYCLINE)

ABRIKOSOV, I.A.; ZAKHAROVA, Ye.A.; KAPLUN, N.A.; PUCHKOV, N.V.  
MARKOVNIKOVA, Ye.B.; POZDNEYEVA, N.K.

Clinical and physiological basis for the use of adrenaline  
electrophoresis in the over-all treatment of hypertensive  
patients with cardiac symptoms. Report No. 2. Vop. kur.  
fizioter. i lech. fiz. kul't. 25 no. 5:390-396 S-0 '60.

1. Iz Nauchno-issledovatel'skogo instituta fizioterapii Ministerstva  
zdravookhraneniya RSFSR (dir. - prof. A.N. Obrosov).  
(ELECTROPHORESIS) (ADRENALINE) (HYPERTENSION)

PUCHKOV, N.V., doktor med. nauk

Role of leucocytes in digestion and ovulation in fishes. Trudy sov.  
Ikht.kom. no.8:186-196 ' 58. (MIRA 11:11)

1. Kafedra fiziologii zhivotnykh Moskovskogo tekhnicheskogo instituta  
rybnoy promyshlennosti i khozyaystva imeni A.I. Mikoyana.  
(Leucocytes) (Digestion) (Ovulation) (Fishes--Physiology)

ABRIKOSOV, I.A. [deceased].., ZAKHAROVA, Ye.A., KAPLUN, N.A., MARKOVNIKOVA,  
Y.B., OBRISOV, A.N., POZDNEYEVA, N.K., PUCHKOV, N.V.

Basic problems in galvono-zionization and electrophoresis.  
Vop.kur.fizioter. i lech. fiz. kul't. 23 no. 5:390-398 S-0 '58

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A.N. Obrosov).

(ELECTROPHORESIS)

ANOKHIN, P.K., BABSKIY, Ye.B., VERESHCHAGIN, N.K., KABANOV, A.N., PUCHKOV, N.V.  
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Nikolai Vladimirovich Timofeev; an obituary. *Fiziol. zhur.* 44  
no.9:904-905 S '58 (MIRA 11:12)  
(TIMOFEEV, NIKOLAI VLADIMIROVICH, 1896-1958)

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Mechanism of phagocytosis and the effect of certain environmental factors on the phagocytic activity of leucocytes in the organism.  
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(PHAGOCYTOSIS)

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Temperature coefficient of phagocytosis. *Fiziol. zh. SSSR* 38 no.4:  
490-495 July-Aug 1952. (GLNL 23:2)

1. Department of Animal Physiology, Moscow Technical Institute of the  
Fish Industry imeni A. I. Mikoyan.

PUCHKOV, N.V.; TITOVA, S.M.

Modified method for the study of phagocytic activity of leukocytes.  
Fiziol. zh. SSSR 38 no.6:756-757 Nov-Dec 1952. (GLML 23:4)

1. Laboratory of the Physiology and Pathophysiology of the Nervous  
System of the Institute of Psychiatry, Ministry of Public Health USSR.

PUCHKOV, N.V.; KULYABKO, O.M.

Effect of blood serum from children with myeloid leukemia on the phagocytic reaction of leukocytes. Pat. fiziol. i eksp. terap. no.2: 82-83 '64. (MIRA 17:9)

1. Laboratoriya patofiziologii Instituta pediatrii (dir. - dotsent M.Ya. Studenikin) AMN SSSR, Moskva.

PUCHKOV, N.V.

Role of glycogenolytic processes in phagocytic activities of leukocytes  
Biokhimiia 20 no.6:709-713 N-D '55. (MLRA 9:3)

1. Kafedra fiziologii zhivotnykh Moskovskogo tekhnicheskogo  
instituta rybnoy promyshlennosti i khozyaystva imeni A.I. Mikoyana.

(PHAGOCYTOSIS,

glycolysis in)

(GLYCOGEN, metabolism,

glycolysis in phagocytosis)

(LEUKOCYTES, physiology,

phagocytosis, glycolysis in )

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1970, p. 1.

--Miracidia of fish; loc. col. -- Novaya Zembla, Pechenogorsk, 1954. 379 p.  
(50-20001)

QL639.P8

1. Fishes - Miracidia.

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CIA-RDP86-00513R001343520011-1"

PUCHKOV, N.V.

✓ 7095. Role of glycolytic processes in the phagocytic activity of [frog] blood leucocytes. N. V. Putchkov. *Biokhimiya*, 1955, 20, 709-713 (Dept. Animal Physiol. A.I. Mikoyan Moscow Tech. Inst. of the Fish Industry and Economy, U.S.S.R.). — When glycolysis ceases due to the presence of iodoacetic acid, arsenite, or phloridzin phagocytic activity no longer occurs but the amoeboid mobility remains largely unaffected. Neither phagocytic activity nor amoeboid mobility are affected by  $5 \times 10^{-6}$ M KCN. If both respiration and glycolysis are poisoned both these activities cease. It is concluded that the energy for phagocytic activity is derived from glycolytic processes whereas the amoeboid mobility can be maintained by energy from direct oxidation. (Russian)

A. K. GRZYBOWSKI

PUCHKOV, P.I., inzh.; VINOGRADOV, O.S., inzh.

Heat transfer in annular slots. Energomashinostroenie 9 no.11:22-  
24 N '63. (MIRA 17:2)

SLIVKO, V.V., otv. red.; VINOGRADOVA, T.A., red.; MARSHAK, A.L.,  
red.; PUCHKOV, P.I., red.

[Reports of a scientific conference on the technology and  
microbiology of milk and milk products] Doklady nauchnoi  
konferentsii po voprosam tekhnologii i mikrobiologii mo-  
loka i molochnykh produktov. Vologda, Vologodskoe knizh-  
noe izd-vo, 1964. 91 p. (MIRA 17:12)

1. Molochnoye (Vologodskaya oblast'). Vologodskiy molochn-  
nyy institut.

PUCHKOV, P.I., inzh.; VINOGRADOV, O.S., inzh.

Study of heat exchange and hydraulic resistance of helical channels  
with heat emitting internal surface. Teploenergetika 11 no.10;  
62-65 O '64.  
(MIRA 18:3)

i. TSentral'nyy koteloturbinnyy institut.

L 27866-66 EWT(1)/ETC/EPF(n)-2/ENG(m) WW/38

ACC NR: AT6001355

SOURCE CODE: UR/0000/65/000/000/0076/0092

AUTHOR: Puchkov, P. I., Vinogradov, O. S.

ORG: Central Institute of Boilers and Turbines im. I. I. Polzunova (Tsentral'nyy kotloturbinnyy institut)

TITLE: Heat transfer and hydraulic resistance in annular channels with smooth and rough heat-emitting surfaces

SOURCE: Teplo- i massoperenos. t. 1: Konvektivnyy teploobmen v odnorodnoy srede (Heat and mass transfer. v. 1: Convective heat exchange in a homogeneous medium). Minsk, Nauka i tekhnika, 1965, 76-92

TOPIC TAGS: heat transfer, annular channel, surface property

ABSTRACT: To determine the effect of the roughness of a heat-emitting surface on the heat transfer and hydraulic resistance in annular channels with a flow of air, experiments were conducted using both annular channels with smooth and with rough heat-emitting surfaces. Measurements were made of the air flow rate, pressure drop, and surface temperature. The air temperature in the test section was varied from 298 to 318K. The experimental data was analyzed in terms of the Nu and Re numbers. Empirical equations were obtained which describe the effect of the surface roughness on the heat transfer and the hydraulic resistance in annular channels of various dimensions. It is shown that for the same size channels, the heat transfer and the hydraulic

Card 1/2

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ACC NR: AT6001355

resistance depend on both the size and the form of the surface roughness. The intensity of the heat transfer is also greatly dependent on the angle of attack; i.e., air flow perpendicular to the surface increases heat transfer by a factor of  $\sqrt{6}$  as compared to parallel flow. Orig. art. has: 11 figures and 12 formulas. [PS]

SUB CODE: 13/ SUBM DATE: 31Aug65/ ORIG REF: 005/ OTH REF: 009/ ATD PRESS: 4466

Card 2/2

L 63879-65 EWT(1)/EWT(m)/EPF(c)/EPF(n)-2/ENG(m)/EWA(d)/EWP(t)/EWF(k)/EWP(b)/EWA(c)  
JD/WW/HW

ACCESSION NR: AP5015082

UR/0114/65/000/006/0022/0024

536.24.001.5

AUTHOR: Puchkov, P. I. (Candidate of technical sciences);  
Vinogradov, O. S. (Engineer)

TITLE: Longitudinally finned heat-transfer surfaces

SOURCE: Energomashinostroyeniye, no. 6, 1955, 22-24

TOPIC TAGS: heat transfer, finned tubing

ABSTRACT: The results are reported of an experimental investigation of the heat transfer and hydraulic resistance of two 1-m long 32-mm OD metal tubes; one tube was equipped with 12 and the other with 28 longitudinal 11-mm high fins. The tubes had an inside electric heater, and were cooled by air, at  $10^6 - 3 \times 10^6$  N/m<sup>2</sup>, in a closed-type gasodynamic outfit. Critical functions  $Nu = f(Re)$  and  $\xi = f(Re)$  are presented in the form of curves. To enhance the heat transfer, the air between the fins, in the 28-fin tube, was turbulized by 3 ring diaphragms cutting through the fins. Also roughening the fin surface was tested as a measure to improve the heat transfer. Longitudinal finning improves by a factor of 2.4-2.7 the energy characteristics of a smooth tube; the diaphragms and rough surface make them still better (by 7% and 20%, respectively). Orig. art. has: 5 figures, 8 formulas, and 1 table.

Card 1/2

L 63879-65

ACCESSION NR: AP5015082

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: PR

NO REF SOV: 006

OTHER: 001

*llc*  
Card 2/2

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520011-1

PUCHKOV, P.I., kand. tekhn. nauk; VINCGRADOV, O.S., inzh.

Longitudinally finned heat radiating surfaces. Energomashinostroenie  
11 no.6:22-24 Je '65.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520011-1"

PUCHKOV, P. I.

"K voprosu o protsessakh sovremennoego etnicheskogo razvitiya naseleniya  
Okeanii."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,  
Moscow, 3-10 Aug 64.

L 45138-66 EWT(1) WW

ACC NR: AP6020380 (N)

SOURCE CODE: UR/0114/66/000/006/0031/0032

AUTHOR: Puchkov, P. I. (Candidate of technical sciences); Vinogradov, O. S. (Candidate of technical sciences)

ORG: none

TITLE: Heat transfer in smooth annular heat exchanger channels

SOURCE: Energomashinostroyeniye, no. 6, 1966, 31-32

TOPIC TAGS: convective heat transfer, heat exchanger

ABSTRACT: For annular channels with different ratios of inside and outside diameter, the dimensionless equation must contain an additional multiplier  $d_2/d_1$  to take account of the relative dimensions of the annular channel. In the general form the heat transfer equation for an annular channel is written in the form:

$$Nu = c Re^{0.8} Pr^{0.4} \left( \frac{d_2}{d_1} \right). \quad (1)$$

The experimental results of many investigators can be correlated by the equations

$$Nu = 0.023 Re^{0.8} Pr^{0.4} \quad (2)$$

or

$$Nu = 0.023 Re^{0.8} Pr^{0.4} \left( \frac{d_2}{d_1} - 1 \right)^{0.2} \quad (3)$$

UDC: 621.1.016.4:62-45

Card 1/2

L 45138-66

ACC NR: AP6020380

in the range of variation of  $d_2/d_1$  from 1.185 to 2.3. To verify the possibility of extrapolating Equations (2) and (3) to the region of high values of  $d_2/d_1$ , experiments were carried out at  $d_2/d_1 = 3.08; 4.92$ ; and 8.24. The inside heat transfer surface was a stainless steel tube with a diameter of 13/2 mm, which was placed in channels 40, 64, and 107 mm in diameter and heated with an alternating current. The experimental results were worked up in two ways; with respect to the equivalent diameter, and with respect to the diameter of the heat transfer tube. Curves are given for the two cases. It was found that working up the data with respect to the equivalent diameter does not yield a single valued relationship, while with respect to  $d_1$  the experimental points fall in a satisfactory manner along a straight line constructed from Equation (3), and agree well with previous literature data. Orig. art. has: 3 formulas and 2 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 002

Card 2/2 ULR

PUSHKOV, P. V.

"Hydrogenation of Keptene-1 and n-Heptane under Hydrogen Pressure", Dok. AN, 24,  
No. 4, 1939. Mbr., Inst. Minerals, Dept. Tech. Sci., Acad. Sci., -1939-.

*PUCHKOV, P. V.*  
NIKOLAYEVA, A. F.; PUCHKOV, P. V.

"Hydrogenation of Hexylene Under High Pressure of Hydrogen," Zhur. Obshch. Khim., 9, No. 3, 1939. Laboratory of Hydrogenation, Institute of Combustible Minerals, Academy of Sciences USSR, Received 10 June 1938.

Report U-1517, 22 Oct 1951

FUDOV P. V.

600

1. MINGLAEVA, A. F., FUDOV, P. V.

2. USSR (600)

"Hydrogenation of C<sub>6</sub>-cyclohexene under Hydrogen Pressure",  
Zhur. Oshch. Khim., 9, No. 23, 1939. Lab. of Hydrogenation,  
Inst. of Mineral Fuels, Acad. of Sci. USSR.  
Received 21 June 1939.

c. [REDACTED] Report U-1346, 11 Jan 1952.

Transformation of methylcyclohexane under hydrogen pressure. P. V. Puchkov. *Khim. Promst. Topmu* 9, 141-151 (1988). -  $C_8H_{16}Me$  was treated in an autoclave at 470° and an initial H<sub>2</sub> pressure of 40-140 atm. for 0.5-4 hrs. in the presence of the MoS<sub>2</sub> and Ni oxide catalysts. The MoS<sub>2</sub> catalyst practically did not promote destructive dehydrogenation. On the other hand, the dehydrogenation in the presence of Ni oxide catalyst yielded about 50% of gas, which consisted mainly of CH<sub>4</sub>. The fractions obtained b, 90-93° and 95-104°, contained unsatd. hydrocarbons 9 and 4, and aromatic hydrocarbons 19.5 and 13.9%, resp. The presence of cyclic hydrocarbons of mol. wt. 90 in the fraction b, 95-104°, was observed.  
A. A. Pashkov

## ASH-SEA METALLURGICAL LITERATURE CLASSIFICATION

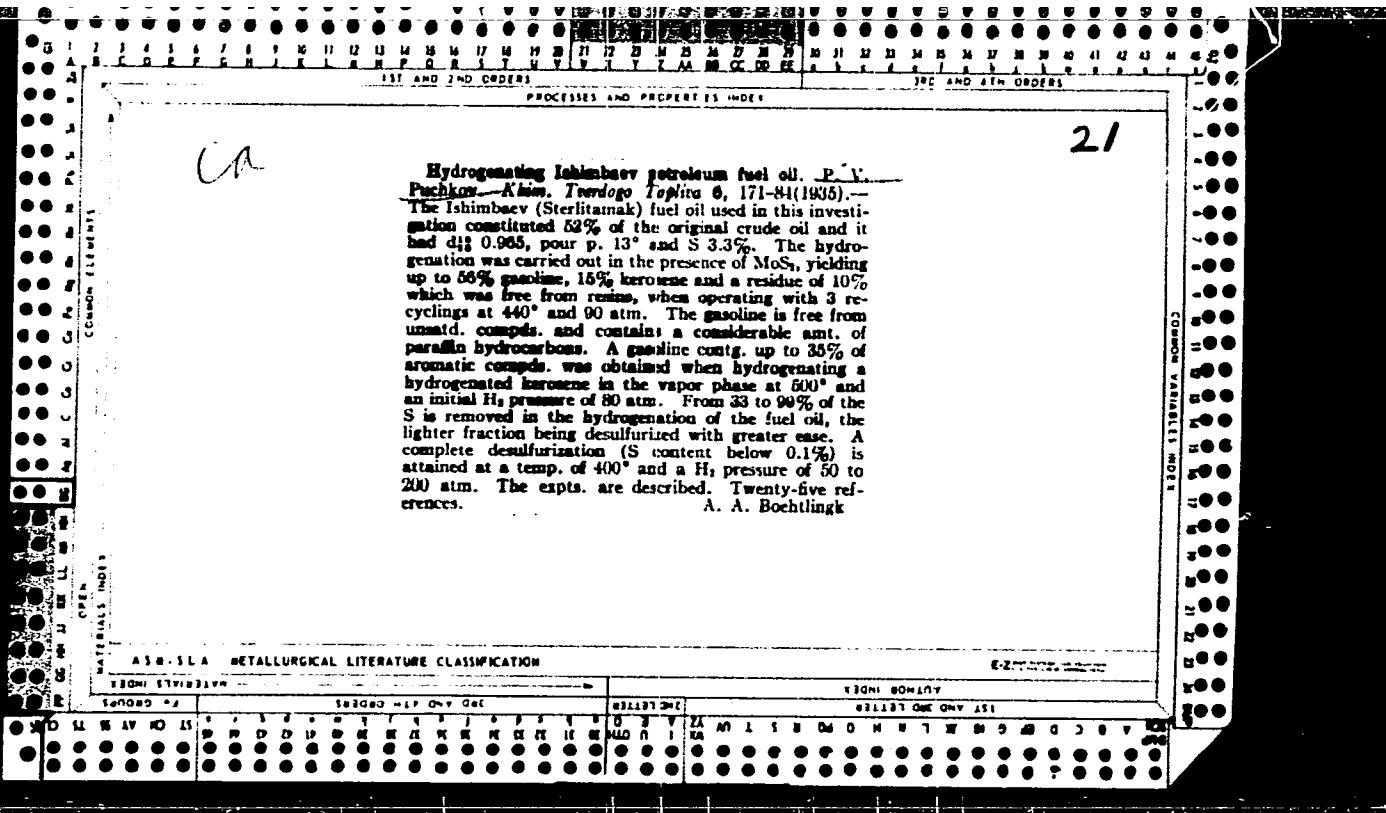
"APPROVED FOR RELEASE: 06/15/2000

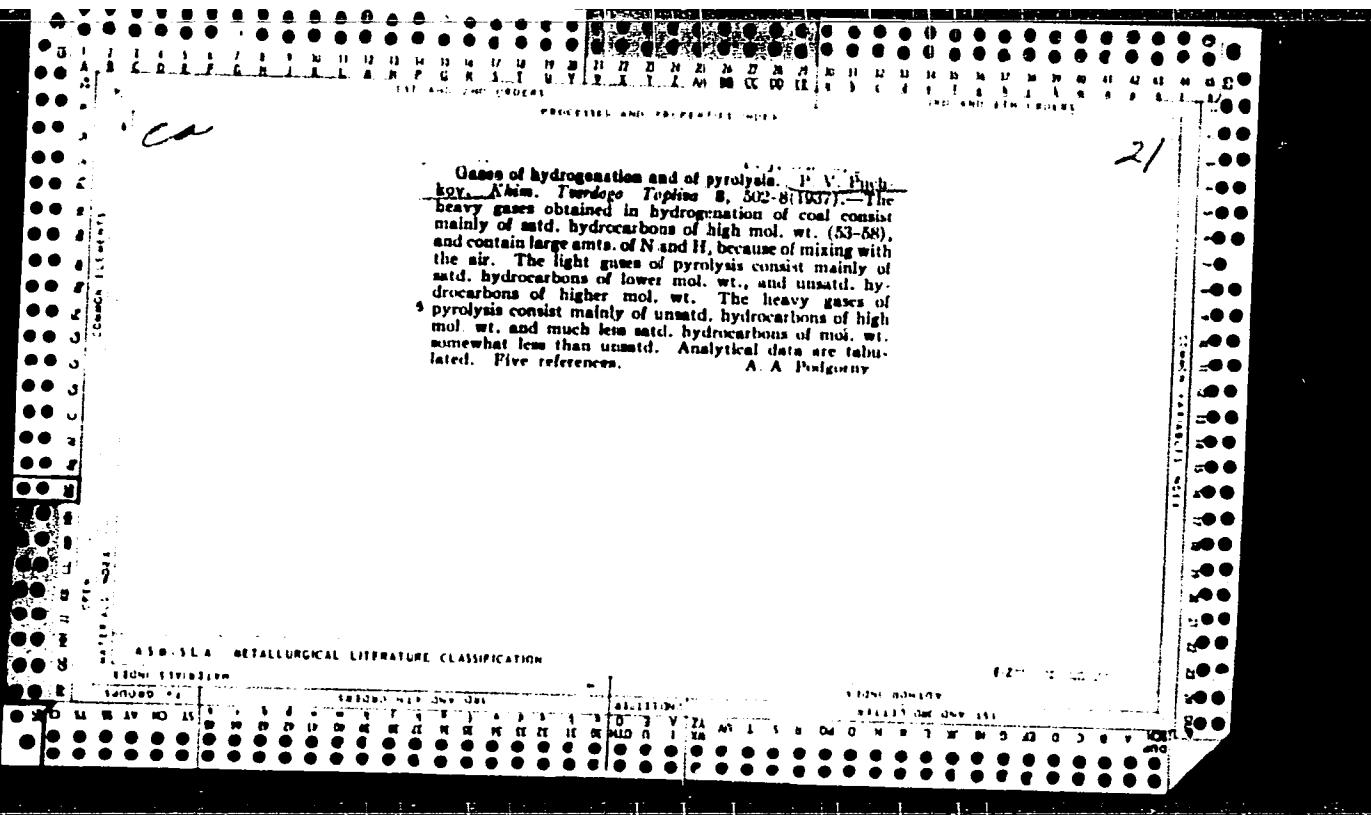
CIA-RDP86-00513R001343520011-1

P. MICHAE, P. V.  
A. M. TIVAKHO, ZAFKH 14, 1940, 1319-20

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520011-1"





Transformation of benzene under hydrogen pressure.  
P. V. Puchkov. *J. Gen. Chem. (U. S. S. R.)* 8, 1677-81  
(1938); cf. C. A. 33, 37609. - Destructive hydrogenation of C<sub>6</sub>H<sub>6</sub> at 400° and an initial H pressure of 140 atm for 1 hr. in the presence of MoS<sub>2</sub> gave 60% catalyst, contg. cyclohexane 44.1, methyleclopentane 32.8 and hexane 3.1%. At 470° under analogous conditions, the catalyst contained cyclohexane 40.1, methyleclopentane 30.8 and hexane 3.1%. Transformation of toluene under hydrogen pressure. P. V. Puchkov and A. F. Nikolaeva. *Ibid.* 17, 56-62. - Treated as above, toluene gave at 400° 70% catalyst, contg. methylecyclohexane 38, penta methylenes (chiefly 1,2- and 1,3-dimethylcyclopentane) 33 and paraffins 0%. At 470° the reaction proceeds with considerable demethylation of PhMe to C<sub>6</sub>H<sub>6</sub> and formation of pentamethylene and paraffins. Chas. Blane

Destructive hydrogenation of oil products. P. V.  
Puchkov. *Bull. acad. sci. U. R. S. S., Classe sci. math.*  
*mat., Ser. chim.* 1937, 481 90 (in English 499 500); cf.  
*C. A.* 31, 4901, 5551\*. Chas. France

CLASSIFICATION

CODE

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V Hydrogenation of sulfurous petroleum. P. A. Puchkov. *Neftegaz Akad.* 18, No. 9, 41 (1965). *Khimi & industria* 39, 1087; cf. *C. A.* 61, 55611. - Light fractions distg. below 300° are desulfurized by hydrogenation under 20 atm. at 400-20°, in presence of  $\text{MoS}_2$  and  $\text{Cr}_2\text{O}_3$ . The final yield is 98-99% and the S content not over 0.1%. The residues above 300° and the oils obtained by fractionating them are desulfurized at 400° under 150-200 atm., to a S content of 0.2%, with a yield of 95-7%; or they are destructively hydrogenated in liquid phase at 420-500 under 150-200 atm. to give desulfurized motor gasoline and kerosene. Under these conditions 85% of light colored products contg. not more than 0.1% S is obtained. Hydrogenation may be combined either with cracking or with desulfurization of the cracked products of sulfurous petroleums.

A. Papineau-Couture

1A

22

Hydrogenation at low temperature. I. Desulfurization of Ishimbayev topped crude oil under hydrogen pressure. P. V. Puchkov and A. F. Nikolaeva. *J. Applied Chem.*, (U. S. S. R.) 10, 327-35 (in German 335) (1937). Desulfurization of the above oil (contg. 3.12% S) at 340-415° and a cold H<sub>2</sub> pressure of 50-250 atm. in the presence of the MoS<sub>2</sub> catalyst yields a crude product with a reduced S content. The velocity of the reactions is directly related to pressure and temp. The above oil is satisfactorily desulfurized at 300-415° and a cold H<sub>2</sub> pressure of 100-250 atm., yielding 0.5% (by wt.) of a product (not refined) with a S content of 0.13-0.32%. Resinous substances are removed simultaneously. Six references. Also in *Bull. acad. sci. U. S. S. R., Classe sci. math. nat., Ser. chim.* 1937, 171-83 (in English 183-4).

A. A. Podgorny

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

E-ZEE 12-14-17

NIKOLAEVA, A. F., PUCHKOV, P. V.

"Hydrogenation of Hexylene Under High Pressure of Hydrogen," Zhur. Obshch. Khim., 9, No. 3, 1939. Laboratory of Hydrogenation, Institute of Combustible Minerals, Academy of Sciences USSR, Received 10 June 1938.

Report U-1517, 22 Oct 1951

PUCHKOV, P. V., NIKOLAYEVA, A. F.

"Hydrogenation of Ethylbenzene Under High Pressure of Hydrogen," Zhur. Obshch. Khim., 9, No. 3, 1939. Laboratory of Hydrogenation, Institute of Combustible Minerals, Academy of Sciences USSR. Received 10 June 1938.

Report U-1517, 22 Oct 1951

PUCHKOV, P. V., NIKOLAYEVA, A. F.

"Hydrogenation of Ethylbenzene Under High Pressure of Hydrogen," Zhur. Obrshch. Khim.,  
9 No. 3, 1939. Laboratory of Hydrogenation, Institute of Combustible Minerals, Academy  
of Sciences USSR. Received 10 June 1938.

Report U-1517, 22 Oct 1951

PUCHKOV, P. V.

"Catalytic Isomarization fo Monocyclic Hydrocarbons in the Presence of Molybdenum Bisulfide."

Zhur. Fiz. Khim., Vol. 14, Nos. 9-10, 1940

PUCHKOV, P. V.

K. P. LAVROVSKII, Neftyanoe Khozyaistvo 26, No. 8, 65-9  
29, No. 9, 75-80, 1935

PUCHKOV, P. V.

K. P. LAVROVSKII, Neftyanoe Khozyaistvo 23, No. 8, 65-9, 1935  
29, No. 9, 75-80,

PUCHKOV, P. V.

K. P. LAVROVSKII, Neftyanoe Khozyaistvo 28, No. 8, 69-72, 1935

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520011-1

PUCHKOV, S.

Chernigov "capron." Znan. ta pratsia no.3:15 Mr '63.  
(MIRA 16:10)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520011-1"

PUCHKOV, S.

Rolling waves of the Dnieper. Znan.ta pratsia no.1:20-21  
Ja '60. (MIRA 13:5)  
(Dnieper River--Navigation)

PUCHKOV, S. (Terezino Belotsekovskogo rayona)

Science village. Znan. ta pratsia no.6:13 Je '62. (MIRA 16:7)

(Terezino (Belaya Tserkov' District)—Stock and stockbreeding—  
Research)

PUCHKOV, S.

Zoological garden in winter. Znan. ta pratsia no.2:32 F '62.  
(MIRA 15:2)  
(Kiev-Zoological gardens)

AZOS, S.; AREF'YEV, A.; ARTAMONOV, I.; BABINA, I.; BEREGOVSKIY, V.; BLOZHKO, V.; BRAVIRMAN, A.; BYKHOVSKIY, Yu.; VINOGRADOVA, M.; GALANKINA, Ye.; GIL'DENGERSH, F.; GLOBA, T.; GREYVER, N.; GORDON, G.; GUL'DIN, I.; GULYAYEVA, Ye.; GUSHCHINA, I.; DAVYDOVSKAYA, Ye.; DAMSKAYA, G.; DERKACHEV, D.; YEVDOKIMOVA, A.; YEGUNOV, V.; ZABELYSHINSKIY, I.; ZAYDENBERG, B.; AZMOSHNIKOV, I.; ITKINA, S.; KARCHEVSKIY, V.; KLUSHIN, D.; KUVINOV, Ye.; KUZNETSOVA, G.; KURSHAKOV, I.; LAKERNIK, M.; LEYZEROVICH, G.; LISOVSKIY, D.; LOSKUTOV, F.; MALEVSKIY, Yu.; MASLYANITSKIY, I.; MAYANTS, A.; MILLER, L.; MITROFANOV, S.; MIKHAYLOV, A.; MYAKINENKOV, I.; NIKITINA, I.; NOVIN, R.; OGNEV, D.; OL'KHOV, N.; OSIPOVA, T.; OSTRONOV, M.; PAKHOMOVA, G.; PETKER, S.; PLAKSIN, I.; PLETENEVA, N.; POPOV, V.; PRESS, Yu.; PROKOF'YEVA, Ye.; PUCHKOV, S.; REZKOVA, F.; RUMYANTSEV, M.; SAKHAROV, I.; SOBOL', S.; SPIVAKOV, Ya.; STRIGIN, I.; SPIRIDONOVA, V.; TIMKO, Ya.; TITOV, S.; TROITSKIY, A.; TOLOKONNIKOV, K.; TROFIMOVA, A.; FEDOROV, V.; CHIZHIKOV, D.; SHEYN, Ya.; YUKHTANOV, D.

Roman Lazarevich Veller; an obituary. TSvet. met. 31 no.5:78-79  
My '58. (MIRA 11:6)

(Veller, Roman Lazarevich, 1897-1958)

TARNOVSKIY, I. Ya.; POZDEYEV, A.A.; PUCHKOV, S.G.

Deformation and stresses in drawing. Kuz.-shtam. proizv.  
2 no.6: 6-10 Je '60. (MIRA 13:10)  
(Drawing (Metalwork)) (Strains and Stresses)

PUCHKOV, S.

Strong ~~men~~. Znan. ta pratsia no. 3:32 Mr '61.  
(Mushrooms, Edible)

(MIRA 14:5)

Puchtsev, S.G.

PHASE I BOOK EXPLOITATION

SOV/6162

Trubin, V. N., Candidate of Technical Sciences, and I. Ya. Tarnovskiy,  
Doctor of Technical Sciences, eds.

Kovka krupnykh pokovok; rezul'taty issledovaniya tekhnologicheskikh  
rezhimov (Production of Heavy Forgings; Results of a Study of  
Technological Methods). Moscow, Mashgiz, 1962. 223 p. 3800  
copies printed.

Reviewer: O. A. Ganago, Candidate of Technical Sciences; Tech. Ed.:  
N. A. Dugina; Executive Ed. of Ural-Siberian Department (Mashgiz);  
E. L. Kolosova, Engineer.

PURPOSE: This book is intended for engineering personnel of forging  
shops and engineering and design offices at heavy-machinery plants,  
as well as for those working in scientific-research and planning  
organizations. It may also be useful to students at higher educa-  
tional establishments.

Card 1/6

17  
Production of Heavy Forgings; (Cont.)

sov/6162

**COVERAGE:** The book reviews technological problems of forging large steel ingots. The effect of reduction and conditions of deformation on the quality of forgings is discussed on the basis of research work done at heavy-machinery plants of the USSR. The book offers practical suggestions on improving the quality of large forgings and reducing the amount of labor required to produce them. I. Ya. Chernikhova, V. I. Tarnovskiy, and V. P. Bakharev took part in preparing the copy for publication. There are 193 references, mostly Soviet.

TABLE OF CONTENTS:

Foreword	3
Ch. I. Effect of Technological Parameters of Forging on the Quality of Forgings	5
Deformations and stresses during drawing and up- setting operations (Tarnovskiy, I. Ya., and V. N. Trubin)	5

Card 2/6

## Production of Heavy Forgings; (Cont.)

SOV/6162

Ch. V. Improving the Technology of Forging from  
Large Ingots

187

Selection of best methods for disk forging on the  
basis of model analysis (Tarnovskiy, I. Ya.,  
V. N. Trubin, and S. G. Puchkov)

187

Rational technology of forging of backup and work-  
ing rolls [for rolling mills] (Golubyatnikov, N. K.)

207

Improving the technology of forging rotors and disks  
(Nedosekin, L. I., and V. M. Korovina)

212

Bibliography

215

AVAILABLE: Library of Congress

SUBJECT: Metals and Metallurgy

Card 6/6

DV/wb/jk  
2/25/63

KOTEL'NIKOV, V.P.; TARNOVSKIY, I.Ya.; PUCHKOV, S.G.

Nomograms for the calculation of increases in width and forces in  
forge drawing. Kuz.-shtam. proizv. 5 no.12:6-10 D '63. (MIRA 17:1)

Pn. L H Koz, S.G.

TARNOVSKIY, I.Ya.; GANAGO, O.A.; BAGROV, I.N.; SHELEKHOV, V.A.; Prinimali  
uchastiye: MAKAYEV, S.V.; inzh.; RYABOKON', N.K., inzh.; KOTEL'NIKOV,  
G.V., inzh.; PUCHKOV, S.G., inzh.; STAROSELETSKIY, M.I., inzh.;  
BAKHAREV, V.P., tekhnik.

Developing a technology for the manufacture of lightweight railroad  
car wheels. Kuz.-shtam. proizv. l no.9:1-4 S '59.

(MIRA 12:12)

(Car wheels) (Forging)

FUCHKOV, S.G.

Deceased

Ferging

See ILC

KON'KOV, Arkadiy Sergeyevich; GANAGO, O.A., kand. tekhn. nauk, retsenzent;  
MOZHAYSKIY, V.S., inzh., retsenzent; SOLONIN, I.S., kand. tekhn.nauk,  
red; PUCHKOV, S.G., inzh., red.; DUGINA, N.A.; tekhn. red.

[Reducing allowances in forging] Snizhenie pripuskov pri shampovke  
pokovok. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,  
(MIRA 14:11)

167 p.  
(Forging) (Tolerance (Engineering))

1. PUCHKOV, S. V.

2. USSR (600)

"Free Longitudinal Vibrations of a Body of  
Uniform Tensile Strength," Trudy Seismologicheskogo instituta.  
No. 127, 1948 (136-142)

3. Meteorologiya i Gidrologiya, No. 3. 1949.  
████████ Report U-2551. 30 Oct 52

PUCHKOV, S. V.

PA 233T90

USSR/Geophysics - Earthquakes

1950

"Vibrations of Buildings and Ground as a Result of Explosions," A. I. Kats, S. V. Puchkov

"Trudy Geofiz Inst" No 9 (136), pp 123-126

Basic results of authors' measurements of subject vibrations, as a result of using powerful explosives (1,180 tons) in Shchokino, Tula Oblast, in Mar 49.

233T90

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520011-1

PUCHKOV, S.V.; KATS, A.Z.

Instrumental seismic division of subsoil into small regions.  
Trudy Geofiz. inst. no.30:208-216 '55.  
(Seismology) (MIRA 9:6)

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CIA-RDP86-00513R001343520011-1"

KATS, A.Z.; PUCHKOV, S.V.

Action of seismic waves on structures. Trudy Geofiz. inst. no.30:  
226-239 '55.  
(Earthquakes and building) (MIRA 9:6)

POCHKOV, S.V.

Seismicity of the ashkhabad region according to observations in 1953.  
Izv.AM SSSR.Ser.geofiz. no.4:469-472 Ap '56. (MLRA 9:8)

1. Akademiya nauk SSSR, Geofizicheskiy institut.  
(Ashkhabad--Earthquakes)

PUCHKOV, S. V.

Limiting intensity of earthquakes on fundamental rock strata. Izv.  
AN SSSR. Ser. geofiz. no. 8: 920-926 Ag '56.  
(MLRA 10:1)

1. Akademiya nauk SSSR, Geofizicheskiy institut.  
(Seismology)

UCHKOV, S.V., SOLOVENKO, V.P., TRSKOV, A.A., FLORENSOV, N.A.

Earthquake, 27 June 1957

Questions of Engineering Seismology, Issue 41

Published by the Publishing House of the Academy of Sciences of the USSR, Moscow, 1958

SOLONENKO, V.P.; TRESKOV, A.A.; FLORENSOV, N.A.; PUCHKOV, S.V.

Muya earthquake, June 27, 1957. Trudy Inst.fiz.zem. no.1:29-43  
'58. (MIRA 12:9)

(Muya Valley--Earthquakes)

Puchkov, S.V. 49-1-11/16

AUTHOR: Puchkov, S.V.

TITLE: On the Foundations of the Complex Method of Seismic Zoning.  
(Ob osnovakh kompleksnogo metoda seysmicheskogo  
rayonirovaniya)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya,  
1958, Nr 1, pp.107-115 (USSR)

ABSTRACT: The author discusses in some detail existing methods and conceptions of seismic zoning and formulates principles which should be applied as a basis of seismic zoning which can be briefly summarised thus: strong earthquakes should be ordinated to the zones of large tectonic disruptions; the limit force of earthquakes in basic rock formations does not exceed 7 to 8 Balls; the maximum force of tremors is ordinated to sand-clay formations and in these it can be higher on the average by 2 Balls than in dense formations; the maximum force of tremors need not coincide with the epicentre of a strong earthquake; the same quantity of seismic energy passes from an earthquke focus to rocks and loose formations. There are 6 figures, 4 graphs, and 11 references, all of which are Russian.

Card 1/2

49-1-11/16

On the Foundations of the Complex Method of Seismic Zoning.

ASSOCIATION: Academy of Sciences, USSR, Institute of Physics of  
the Earth (Akademiya Nauk SSSR, Institut Fiziki Zemli)

SUBMITTED: January 23, 1957.

AVAILABLE: Library of Congress.

Card 2/2

SOV/49-59-6-12/21

AUTHORS: Puchkov, S. V., Khovanova, R. I.

TITLE: The Kyren Earthquake on August 10, 1958.

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 6, pp 891-894 and 1 plate (USSR)

ABSTRACT: The earthquake occurred during investigations being carried out in the area by the ~~Emberallskaya~~ expedition of the Institute of Physics of the Earth, Academy of Sciences, USSR, by whom four experimental stations were set up, as shown in Fig 1 (1 - stations, 2 - epicentre, 3 - boundary of the earthquake). The calculations were based on the analytical method of the difference between the entering time of the waves  $\bar{P}$  and  $\bar{S}$  (Fig 2), as recorded by different stations (Table 1 and Fig 3). The time of the earthquake was determined as 11 h, 34' 25.8" (Fig 3). The velocity ratio of the longitudinal and transverse waves was  $a/b = 1.75$ . The velocity  $a$  was calculated from the expression on p 892, where  $\delta t_1$ ,  $\delta t_2$  and  $\delta t_3$  - travel times of the wave as recorded by stations "Mondy", "Kyren" and "Zhemchug";  $x_2$  and  $x_3$  - distances between "Mondy"

Card 1/2

SOV/49-59-6-12/21

The Kyren Earthquake on August 10, 1958.

"Kyren", and "Zhemchug", respectively (Table 2). The value of  $a$  was found to be  $a = 5.4 \pm 0.15$  km/sec. The epicentre and the depth of focus was determined as  $\varphi = 51^{\circ}75'$  N,  $\lambda = 101^{\circ}95'$  E,  $h = 10$  km (Fig 4). The fictitious velocity was found  $K = 7.56$  km/sec. Also the hyperbole method was applied in calculations (Fig 5). Both methods were in significant agreement. The energy  $E$  was determined from the formula on p 893 as equal to  $9.3 \times 10^{21}$  ergs. The force of the earthquake was found to be equal to  $M = 526$ . There are 5 figures, 2 tables and 2 Soviet references.

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki Zemli (Academy of Sciences, USSR, Institute of Physics of the Earth)

SUBMITTED: October 25, 1958.

Card 2/2

PUCHKOV, S.V.; SOLONENKO, V.P.; TRESKOV, A.A.; FLORENSOV, N.A.

A recent powerful earthquake in Eastern Siberia. Izv. Sib.  
otd. AN SSSR no.3:42-51 '58. (MIRA 11:8)

1. Vostochno-Sibirskiy filial AN SSSR i Institut fiziki Zemli  
AN SSSR.  
(Siberia, Eastern--Earthquakes)

VIL'KOVYSKAYA, G.B.; MURONETS, I.I.; PUCHKOV, S.V., kand.fiz.-mat.nauk;  
KRAVCHENKO, I.M., red.; SIMONOVA, A.I., red.; MANOLE, M.G., red.;  
KOLESNIKOVA, A.P., tekhn.red.

[German-Russian geophysical dictionary] Nemetsko-russkii geo-  
fizicheskii slovar'. Pod red. I.M.Kravchenko, A.I.Simonova.  
Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 409 p. (MIRA 12:5)  
(German language--Dictionaries--Russian)  
(Geophysics--Dictionaries)

PUCHKOV, S.V.

Behavior of buildings, situated in various soils, during  
the passage of seismic waves. Trudy Inst. fiz. Zem. 28  
Vop. inzh. seism. no.8:141-146 '63. (MIRA 16:11)

PUCHKOV, S. V.

Accelerograph and the practice of using it for registering  
strong earth movements during earthquakes and blasts. Biul.  
Sov. po seism. no.14:58-62 '63. (MIRA 16:4)

(Accelerometers) (Earth movements)

PUCHKOV, S. V.

Some characteristics of the vibrations of soils during earthquakes in the Lake Baikal region. Trudy Inst. fiz. Zem. no.22. Vop. inzh. seism. no.7:81-88 '62. (MIRA 15:10)

(Baikal Lake region—Seismometry)

PUCHKOV, S.V.

Correlation of the velocity of seismic vibrations of particles  
with the occurrence of ~~luminescence~~ of water-bearing sand.  
Trudy Inst. fiz. Zem. no.21. Vop. fizich. seism. no.6. 115-117  
'62.

(MIRA 15:9)

(Blasting)  
(Sand)

REZANOV, I.A.; RASTVOROVA, V.A.; LEONOV, N.N.; Prinimali uchastiye:  
ANDREYEV, S.S.; GAL'PERIN, Ye.I.; DZHABEDOV, A.T.; KATS, A.Z.;  
KOSMINSKAYA, I.P.; LEONOV, N.N.; MASARSKIY, S.I.; MEDVEDEV,  
S.V.; PETRUSHEVSKIY, B.A.; PUCHKOV, S.V.; RASTVOROVA, V.A.;  
REZANOV, I.A.; SAVARENISKIY, Ye.F.; KHARIN, D.A.; Red karty:  
GAMBURTSEV, G.A.

Establishment of detailed seismic regions as exemplified by  
a region of western Turkmenistan. Biul. Sov. po seism. no.8:  
131-141 '60. (MIRA 13:10)

1. Institut fiziki Zemli AN SSSR.  
(Turkmenistan--Seismology)